APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,587	04/23/2001	Shuxian Lou	CISCO-3794	5372

7590 02/09/2005	EXAMINER	
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P. O. Box 640640	ART UNIT	PAPER NUMBER
San Jose, CA 95110	2127	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	**Applicant(s)**
Office Action Summary	09/841,587	LOU ET AL.
	Examiner	**Art Unit**	
	Kenneth Tang	2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _27 September 2004_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-25_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-25_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
   application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____..

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

1.   This action is in response to the Amendment filed on 9/27/04. Applicant's arguments

have been fully considered but were not found to be persuasive.

2.   Claims 1-25 are presented for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention:

a.   In claim 1, "mapping said subscriber to said reserved port bundle in a port bundle

object" (line 14) is indefinite because it is not made explicitly clear in the claim language

who or what is doing the mapping. For example, it is unclear if the subscriber is doing

the mapping or if there is a manager or switch doing the mapping, or neither. In addition,

it does not make sense and is not understood how it is possible to map in a port bundle

object. Furthermore, the it is not made explicitly clear in the claim language whether the

"object" is a physical object or a logical (software) one.

b.   Claims 16 and 25 are rejected for being indefinite by the same reasons as stated in

the rejection of claim 1 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   **Claims 1-9, 16-20, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable**

over Kadambi et al. (hereinafter Kadambi) (US 2001/0043611 A1) in view of Wirstrom et

al. (hereinafter Wirstrom) (US 4,691,355).

5.   As to claim 1, Kadambi teaches a method for associating a subscriber (internet/Ethernet

subscriber) with one of a plurality of port bundles, comprising:

reserving one of said plurality of port bundles for said subscriber if said subscriber has

not been assigned one of said plurality of port bundles *(page 9,[0117] and [0220], and see claim*

3);

changing an original source port number in a data packet to a port bundle number

corresponding to said one of said plurality of port bundles (numerous ports can be "trunked" to

increase bandwidth, where a trunk group can also be called a port bundle) *(page 11, [0152],*

page 14, [0168], and page 17, [0204]);

modifying a subscriber address (IP address) in said data packet to an assigned

aggregation address (address of device);

issuing a request to a remote management device *(page 11, [0152], page 14, [0168], and page*

17, [0204]);

receiving a response from the management device *(page 7, [0102]-[0104])*;

mapping said subscriber to said reserved port bundle in a port bundle object *(page 14, [0169])*; and

assigning said reserved port bundle to said subscriber *(page 14, [0168], and see Abstract)*.

Kadambi fails to explicitly teach using authentication for issuing a request, receiving a response of the authentication of the subscriber and the assignment of the port afterwards. However, Wirstrom teaches assigning ports after a signal is detected, received and responded to with respects to authentication *(col. 17, lines 56-68)*. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of using authentication for issuing a request, receiving a response of the authentication of the subscriber and the assignment of the port afterwards to the existing system and method of Kadambi in order to increase security *(col. 5, lines 18-24)*.

Kadambi and Wirstrom fails to explicitly teach that the changing

6.   As to claim 2, Kadambi teaches wherein each of said plurality of port bundles includes a port bundle length, a port number, and an assigned aggregation address *(page 15, [0177])*.

7.   As to claims 3 and 4, Kadambi in view of Wirstrom fails to explicitly teach wherein said range of sequential port numbers is approximated by range of sequential port numbers = $2^{port\ bundle\ length}$. However, a binary representation (log of base 2) to represent a range is well known in the art of computers. It would have been obvious to one of ordinary skill in the art at the time the

invention was made to include the feature of a range of a binary representation of a sequential

port numbers because binary code is the language of the computer.

8.   As to claim 5, Kadambi teaches wherein said port bundle length is an integer in a range

of 1 to 16 *(page 14, [0168])*.

9.   As to claim 6, Kadambi teaches maintaining a status for said subscriber *(page 14, [0169],*

see Abstract).

10.   As to claim 7, Kadambi teaches signaling said status to said management device *(see*

Abstract).

11.   As to claim 8, Kadambi in view of Wirstrom fails to explicitly teach wherein said status

indicates whether said subscriber is logged-on or logged-off. However, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to include the

feature of having a status to indicate whether a subscriber is logged on or off because if it was

logged off, the subscriber would no longer have to be dealt with.

12.   As to claim 9, Kadambi teaches comprising changing said assigned aggregation address

to said subscriber address, resetting said port number to said original source port number, and

transmitting said data packet to said subscriber *(page 11, [0152], page 14, [0168], and page 17,*

[0204]).

13.   As to claim 16, it is rejected for the same reasons as stated in the rejection of claim 1.

14.   As to claim 17, it is rejected for the same reasons as stated in the rejection of claim 2.

15.   As to claim 18, it is rejected for the same reasons as stated in the rejection of claim 3.

16.   As to claim 19, it is rejected for the same reasons as stated in the rejection of claim 4.

17.   As to claim 20, it is rejected for the same reasons as stated in the rejection of claim 5.

18.   As to claim 25, it is rejected for the same reasons as stated in the rejection of claim 1.

19.   **Claims 10-15 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kadambi et al. (hereinafter Kadambi) (US 2001/0043611 A1) in view of Brilliant et al. (hereinafter Brilliant) (US 3,558,823).**

20.   As to claim 10, Kadambi teaches an apparatus for associating a subscriber with one of a plurality of port bundles, comprising:

at least one source port to receive at least one data packet, said data packet having a subscriber address *(page 4, [0043], page 7, [0100], page 11, [0151])*;

each of said plurality of port bundles coupled to said source port *(page 14, [0168])*;

a plurality of memories *(see Abstract)*;

a port bundle object in each of said plurality of memories to associate said

subscriber with said port bundle *(page 2, [0009])*;

a processor coupled to said plurality of port bundles *(page 14, [0169])*; and

an output port coupled to said processor *(page 3, [0039])*.

Kadambi fails to explicitly teach each of said plurality of memories coupled to one of said

plurality of port bundles. However, Brilliant teaches having a plurality of port bundles (trunk

groups) comprising a plurality of memories *(see claim 14)*. It would have been obvious to one of

ordinary skill in the art at the time the invention was made to include the feature of having a

plurality of port bundles (trunk groups) comprising a plurality of memories so that each port

bundle has its own memory.

21.   As to claim 11, Kadambi teaches wherein each of said plurality of port bundles includes a

port bundle length, a port number, and an assigned aggregation address *(page 15, [0177])*.

22.   As to claims 12 and 13, Kadambi in view of Wirstrom fails to explicitly teach wherein

said range of sequential port numbers is approximated by range of sequential port numbers = $2^{port\ bundle\ length}$. However, a binary representation (log of base 2) to represent a range is well known in

the art of computers. It would have been obvious to one of ordinary skill in the art at the time the

invention was made to include the feature of a range of a binary representation of a sequential

port numbers because binary code is the language of the computer.

23.   As to claim 14, Kadambi teaches wherein said port bundle length is an integer in a range

of 1 to 16 *(page 14, [0168])*.

24.   As to claim 15, Kadambi teaches signaling said status to said management device *(see*

Abstract).

25.   As to claim 21, Kadambi teaches maintaining a status for said subscriber *(page 14,*

[0169], see Abstract).

26.   As to claim 22, Kadambi teaches signaling said status to said management device *(see*

Abstract).

27.   As to claim 23, Kadambi in view of Wirstrom fails to explicitly teach wherein said status

indicates whether said subscriber is logged-on or logged-off. However, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to include the

feature of having a status to indicate whether a subscriber is logged on or off because if it was

logged off, the subscriber would no longer have to be dealt with.

28.   As to claim 24, Kadambi teaches comprising changing said assigned aggregation address

to said subscriber address, resetting said port number to said original source port number, and

transmitting said data packet to said subscriber *(page 11, [0152], page 14, [0168], and page 17, [0204]).*

Response to Arguments

29.   In response to applicant's arguments against the references individually, one cannot show

nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller,* 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re*

Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

30.   *Applicant argues on page 9 regarding "object" as being a logical object (in the specification) and not a physical one.*

In response to applicant's argument that the references fail to show certain features of

applicant's invention, it is noted that the features upon which applicant relies (i.e., objects as

being a logical one and not physical) are not recited in the rejected claim(s). Although the claims

are interpreted in light of the specification, limitations from the specification are not read into the

claims. See *In re Van Geuns,* 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

31.   *Applicant further argues on page 9 that the confusion with "object" (mentioned above) may be the reason why it is not understood how it is possible to map in a port bundle object.*

In response, the Examiner asserts that it is not possible to map in a port bundle but rather

map to a port bundle.

32.   *Applicant argues that Kadambi does not teach any type of reserving of port bundles for specific users.*

First, reserving for specific users is not a limitation in the claim language. In addition, to

reserve is merely to save, given the broadest reasonable interpretation of the claim language.

33.   *Applicant argues that Kadambi does not teach changing port numbers.*

In response, the Examiner respectfully disagrees. In page 14, [0168], Kadambi teaches

using switches to change the port numbers and that numerous ports can be "trunked" to increase

bandwidth.

34.   *Applicant argues on pages 11-12 that Kadambi does not teach having subscribers and*
altering to an assigned aggregation address.

In response, the Examiner respectfully disagrees. A Subscriber is merely one that uses

the internet or ethernet services and an aggregation address is merely an one of many addresses

in an aggregation device (which is not even introduced in the claims).

35.   *Applicant argues on pages 12-13 that there does not appear to be any assigning of port*
or port bundles at all in Kadambi.

In response, the Examiner respectfully disagrees. As stated in page 14, [0168], trunk

groups and port bundle is the same thing and can be used interchangeably.

Conclusion

36.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure:

    a.   **US 6,718,139 B1 (Finan et al.)** teaches protocol independent fiber cable communication to a subscriber.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kt
2/3/05

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